OFF 428

AF/Ir

N THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Dennis M. O'Connor

Group Art Unit:

2186

Serial No.:

10/773,847

Examiner:

Pierre-Michel

Bataille

Filed:

February 5, 2004

99999999

Atty. Dkt. No.:

ITL.1808US

§

For:

Address Conversion Technique in a

Context Switching Environment

§

(P15392)

Mail Stop Appeal Brief Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

TRANSMITTAL OF AMENDED APPEAL BRIEF

Dear Sir:

In response to the Notification of Non-Compliant Appeal Brief and pursuant to MPEP § 1205.03(B), attached hereto is an Amended Summary of Claimed Subject Matter.

In the first line of page 4, "claim 12" has been changed to "claim 11". The material in the remainder of the paragraph summarizes claim 11. The Appeal Brief as amended is therefore believed to be in compliance.

No fee is believed to be due with this response. However, the Commissioner is authorized to charge any fee due to Deposit Account No. 20-1504 (ITL.1806US).

Respectfully submitted,

Date:

Timothy N. Trop, Reg. No. 28,994

TROP, PRUNER & HU, P.C. 1616 S. Voss Road, Suite 750

Houston, TX 77057

(713) 468-8880 [Phone]

(713) 468-8883 [Fax]

Nancy Meshkoff

V. SUMMARY OF CLAIMED SUBJECT MATTER.

Embodiments of the present invention relate to a memory management unit (Fig. 2). The memory management unit stores generated virtual address-to-physical address translations. If a virtual address-to-physical address translation is available for a particular virtual address, the memory management unit retrieves the corresponding physical address. If a translation is not available, the memory management unit generates the corresponding physical address from the virtual address. The memory management unit converts the virtual address to a modified virtual address using a process identifier and then performs a page table walk using the modified virtual address, generating the physical address. (Paragraph [1009])

Referring to Appellant's independent claim 1, by way of example, a memory management unit is claimed. (Fig. 2; paragraph [1018]) The memory management unit is configured to receive a virtual address and provide a corresponding physical address. (Fig. 2; paragraph [1018]) The memory management unit includes a storage containing one or more virtual address-to-physical address translations. (Fig. 2, 202; paragraph [1018]) The memory management unit also includes conversion logic to generate a modified virtual address from the virtual address if a virtual address-to-physical address translation for the virtual address does not exist in the storage. (Fig. 2, 206; paragraph [1018]) The memory management unit also includes a page table walk unit configured to convert the modified virtual address into the corresponding physical address. (Fig. 2, 208; paragraph [1020])

Referring to independent claim 11, by way of example, a system is claimed. (Fig. 1; paragraph [1015]) The system includes an antenna (Fig. 1, 108; paragraph [1017]), a memory (Fig. 1, 106; paragraph [1016]), and a processor coupled to the antenna and memory (Fig. 1, 100; paragraph [1016]). The processor includes an address generation unit (Fig. 1, 102; paragraph

[1015]) and a memory management unit (Fig. 1, 104; paragraph [1015]). The memory management unit is configured to receive a virtual address from the address generation unit and provide a corresponding physical address (Fig. 2; paragraph [1018]). The memory management unit includes a storage containing one or more virtual address-to-physical address translations (Fig. 2, 202; paragraph [1018]); conversion logic to generate a modified virtual address from the virtual address if a virtual address-to-physical address translation for the virtual address does not exist in the storage (Fig. 2, 206; paragraph [1018]); and a page table walk unit configured to convert the modified virtual address into the corresponding physical address (Fig. 2, 208; paragraph [1020]).

Referring to independent claim 17, by way of example, a method is claimed. The method includes receiving a virtual address at a memory management unit (Fig. 2; paragraph [1018]); determining if the virtual address has a translation to a physical address in a storage (Fig. 2, 202; paragraph [1018]); if not, generating a modified virtual address from the virtual address (Fig. 2, 206; paragraph [1018]); and translating the modified virtual address into a physical address (Fig. 2, 208; paragraph [1020]).